



Problem Statement BMN-07

Kubernetes CNI Benchmarking

Category: *Benchmarking Methodologies for Network Systems (BMN)*

Reference Document: [draft-ietf-bmwg-containerized-infra](#)
Working Group: [BMWG](#)

Problem Statement

Design and execute a benchmarking study of **Kubernetes Container Network Interfaces (CNIs)** such as Flannel, Calico, and Cilium in an institutional cloud environment. Apply methodologies from **draft-ietf-bmwg-containerized-infra** to measure **latency, throughput, jitter, and scalability** under varying pod densities and traffic patterns.

- Compare results across CNIs.
- Identify bottlenecks that impact cloud-native networking.
- Provide configuration recommendations for academic and research cloud operators.

Reference: *BMWG: Benchmarking Methodology for Containerized Infrastructure*